COURSE DATA

Data Subject

Code	44844
Name	Research and multivariate analysis in WOP
Cycle	Master's degree
ECTS Credits	4.0
Academic year	2024 - 2025

Study (s)

Degree	Center	Acad. year	Period
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	Faculty of Psychology and Speech Therapy	1	First term

Subject-matter

Degree	Subject-matter	Character
2235 - Master's degree Erasmus Mundus on Work, Organizational and Personnel Psycho	5 - Methodology. Explanatory introduction	Obligatory

Coordination

Name	Department
GONZALEZ ROMA, VICENTE	306 - Social Psychology
HERNANDEZ BAEZA, ANA MARIA	267 - Behavioral Sciences Methodology
TOMAS MARCO, MARIA INES	267 - Behavioral Sciences Methodology

SUMMARY

The Master program includes training in methodology, which goal is to provide a sound and scientific basis for the practitioner's activity in WOP-P. This is congruent with the Scientist-Practitioner model and an evidence-based approach.

 The course takes place along the first semester of the academic year and it is focused on all the steps that must be followed to carry out a WOP-P research, including multivariate statistical analysis.

 In the introductory lessons a special emphasis will be put on the need to take into consideration contextual and cultural issues when designing a WOP-P study, as well as measurement issues when cultural comparison is the focus. When focusing on the analysis, attention will be paid to how to test the role of these contextual and cultural variables.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

This course assumes that graduated students have a working knowledge of basic statistics, including descriptive statistics (central tendency, variability), and covariance, correlation and simple regression.

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- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

- Students should demonstrate self-directed learning skills for continued academic growth.

- Students should possess and understand foundational knowledge that enables original thinking and research in the field.

- Que los estudiantes sean capaces de revisar la literatura, formular hipótesis y poner a prueba dichas hipótesis en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de formular preguntas de investigación, estrategias de investigación, cuestiones de diseño de investigación (fiabilidad, validez, etc.) y cuestiones de diseño de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de recopilar datos para la investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de analizar datos de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de redactar trabajos de investigación en psicología del trabajo, de las organizaciones y de los recursos humanos.

- Que los estudiantes sean capaces de presentar oralmente trabajos de integración en psicología del trabajo, de las organizaciones y de los recursos humanos.

DESCRIPTION OF CONTENTS

1. Multivariate research and analysis

1. Foundations: The language of research. Philosophy of research. Formulating the research problem. Literature review. Ethics in research.
2. Choosing the sample: Size and representativeness. Cultural and contextual issues. External validity
3. Choosing and analysing the measurement instruments: Types of measures, reliability and construct validity, introduction to measurement equivalence
4. Research design. Types of designs and internal validity.

5. Analysis

5.1. Descriptive statistics. Data preparation, graphs and basic statistics.

5.2. Inferential statistics. The General linear model: Anova and Regression analysis (mediation, moderation and moderated mediation). Conclusion validity.

6. Concluding and discussing. Writing Up: Key elements, report sections and formatting.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	40,00	100
Development of group work	22,00	0
Development of individual work	20,00	0
Preparation of evaluation activities	10,00	0
Resolution of case studies	8,00	0
TOTAL	100,00	

TEACHING METHODOLOGY

The following teaching techniques will be used:

- Reading, analysis and discussion of published research articles. Papers, where cultural differences are important (when measuring construct and/or testing hypothesis), will be used as pedagogical examples. Different cultural groups (e.g. countries), as well as different cultural values (e.g. individualism-collectivism, power distance), will be explicitly considered.
- Oral presentations by the instructor.
- Oral presentations by the students.
- Guided exercises that focus on databases that include variables related to topics such as Corporate social responsibility, Humanitarian Psychology, Well-being and productivity, and Entrepreneurship, where cultural factors may play a role.
- Individual and group exercises (problem-solving, individual and group tutorships).

EVALUATION

Students will be evaluated in a 0 to 10 scale, considering the following complementary approaches:

1. Individual exercise test: estimation of theoretical and practical contents by means of an individual written test. It will represent 50% of the final qualification.

2. Group assignment: research activity and report that includes different activities and exercises carried out by students (solved exercises, critical analysis of papers and cases, individual and group assignments). It will represent 50% of the final qualification. Considering the nature of the competences to be assessed with this research assignment, the competences cannot be assessed by means of an exam.

Additional considerations:

1. To pass the course, students should achieve a minimum of 50% in both sections (individual exercise test and portfolio).

2. If a student do not pass some of the sections in the first call, the points of the other section will be saved for the second call.

3. The copy or plagiarism of any task of the evaluation will suppose the impossibility to pass the course.

REFERENCES

Basic

- Evans, J. (2007). Your Psychological project. London: Sage.

- Bernstein, I.H. & Rowe, N. A. (2001) Statistical Data Analysis Using Your Personal Computer. Sage

- Lewis-Beck, M. S. (1980). Applied regression. Newbury Park, CA: Sage

- Pedhazur EJ, Pedhazur, L. (1991). Measurement, design and analysis: an integrated approach. LEA. Hillsdale. New Jersey.

- Tabachnick, B. G., and Fidell, L. S. (2007). Using Multivariate Statistics , 5th ed. Boston: Allyn and Bacon

- Hayes, A. F. (2013). Introduction to Mediation, Moderation, and Conditional Process Analysis. A Regression-Based Approach. Guilford Press

- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf

- Lorenzo-Seva, U. & Ferrando, P.J. (2006) FACTOR: a computer program to fit the exploratory factor analysis model. Behavioral Research Methods, 38, 88-91

Additional

- Berry, W. D. & Feldman, S. (1985). Multiple regression in practice. Newbury Park, CA: Sage

- Kim, J. & Mueller, C. W. (1978). Factor analysis. Newbury Park, CA: Sage

- Cohen, J. & Cohen, P., West, S. G. & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences, 3rd ed. Hillsdale, NJ: LEA